Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Previously Presented) An onium salt compound having a cation moiety of the following formula (1),

$$(Ar^2)_{\overline{n}} A^{+} (Ar^1)_{\overline{n}}$$
 (1)

wherein A represents an iodine atom or a sulfur atom, when A is an iodine atom, m is 1 or 2 and n is 0 or 1, provided that (m+n)=2, and x is an integer of 1-10, and when A is a sulfur atom, m is 1-3 and n is 0-2, provided that (m+n)=3, and x is an integer of 1-15; Ar¹ represents a substituted or unsubstituted aromatic hydrocarbon group having 6-20 carbon atoms with a valence of 1 to (x+1) or a substituted or unsubstituted heterocyclic group having 3-20 atoms with a valence of 1 to (x+1), Ar² represents a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the formula to form a group possessing a cyclic structure with 3-8 atoms; and the x-number of P groups bonding to one or more of the m-number of Ar¹ groups individually represent -O-SO₂R¹, -O-S(O)R², or - SO₂R³, wherein R¹ and R² individually represent a hydrogen atom, a substituted monovalent

alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or a group -N(R')₂, wherein R' individually represents a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or two R' groups form, in combination and together with the nitrogen atom in the formula, a group having a cyclic structure with 3-8 atoms and wherein R³ represents a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or a group -N(R')2, wherein R' individually represents a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or two R' groups form, in combination and together with the nitrogen atom in the formula, a group having a cyclic structure with 3-8 atoms.

- 2. (Original) The onium salt compound according to claim 1, wherein A in formula (1) is a sulfur atom.
- 3. (Previously Presented) An onium salt compound having a cationic moiety of the following formula (2),

$$\left(OSO_{2}-CF_{2}-R^{4}\right)_{X}$$

$$\left(Ar^{2}\right)_{\overline{n}}-A^{+}-\left(Ar^{1}\right)_{\overline{m}}$$

$$(2)$$

wherein A represents an iodine atom or a sulfur atom, when A is an iodine atom, m is 1 or 2 and n is 0 or 1, provided that (m+n)=2, and x is an integer of 1-10, and when A is a sulfur atom, m is 1-3 and n is 0-2, provided that (m+n)=3, and x is an integer of 1-15; Ar¹ represents a substituted or unsubstituted aromatic hydrocarbon group having 6-20 carbon atoms with a valence of 1 to (x+1) or a substituted or unsubstituted heterocyclic group having 3-20 atoms with a valence of 1 to (x+1), Ar² represents a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the formula to form a group possessing a cyclic structure with 3-8 atoms and R⁴ represents a hydrogen atom, fluorine atom, nitro group, cyano group, or a monovalent organic group having 1-20 carbon atoms.

4. (Original) The onium salt compound according to claim 3, wherein A in formula (2) is a sulfur atom.

5. (Original) The onium salt compound according to claim 3, wherein R⁴ in the formula (2) is a group of the following formula (3),

$$-CF_{2} - \left(\begin{array}{c} \\ \\ \\ \end{array} \right) \left(\begin{array}{c} \\$$

wherein R⁵ represents a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, a substituted or unsubstituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or a group -N(R²)₂, wherein R² individually represents a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted, monovalent heterocyclic group having 3-20 atoms, or two R² groups form, in combination and together with the nitrogen atom in the formula, a group having a cyclic structure with 3-8 atoms, p is an integer of 0-16, q is an integer of 0-8, and r is an integer of 1-3.

6. (Original) An onium salt compound according to claim 5, wherein both p and q are 0 and both r's are 1.

7. (Previously Presented) An onium salt compound having a cationic moiety represented by the following formula (4)

$$SO_{2} \xrightarrow{\left[R^{6}\right]_{p}} A^{+} \xrightarrow{\left[Ar^{1}\right]_{m}} A^{+} \xrightarrow{\left[Ar^{1}\right]_{m}} A^{+} \xrightarrow{\left[Ar^{2}\right]_{m}} A^{+$$

wherein A represents an iodine atom or a sulfur atom, when A is an iodine atom, m is 1 or 2 and n is 0 or 1, provided that (m+n)=2, and x is an integer of 1-10, and when A is a sulfur atom, m is 1-3 and n is 0-2, provided that (m+n) = 3, and x is an integer of 1-15: Ar¹ represents a substituted or unsubstituted aromatic hydrocarbon group having 6-20 carbon atoms with a valence of 1 to (x+1) or a substituted or unsubstituted heterocyclic group having 3-20 atoms with a valence of 1 to (x+1), Ar^2 represents a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the formula to form a group possessing a cyclic structure with 3-8 atoms; p is an integer of 0-16; q is an integer of 0-8; and R⁶ represents a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or a group -N(R³)₂,

wherein R³ individually represents a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted, monovalent heterocyclic group having 3-20 atoms, or two R³ groups form, in combination and together with the nitrogen atom in the formula, a group having a cyclic structure with 3-8 atoms.

8. (Previously Presented) An onium salt compound having a cationic moiety represented by the following formula (5).

$$(Ar^{2})_{\overline{n}} A^{+} (Ar^{1})_{\overline{m}} SO_{2} (R^{7})_{S}$$

$$(Ar^{2})_{\overline{n}} A^{+} (Ar^{1})_{\overline{m}} (R^{7})_{S}$$

$$(SO_{2})_{\overline{n}} A^{+} (R^{7})_{S}$$

$$(SO_{2}$$

wherein A represents an iodine atom or a sulfur atom, when A is an iodine atom, m is 1 or 2 and n is 0 or 1, provided that (m+n)=2, and x is an integer of 1-10, and when A is a sulfur atom, m is 1-3 and n is 0-2, provided that (m+n)=3, and x is an integer of 1-15; Ar¹ represents a substituted or unsubstituted aromatic hydrocarbon group having 6-20 carbon atoms with a valence of 1 to (x+1) or a substituted or unsubstituted heterocyclic group having 3-20 atoms with a valence of 1 to (x+1), Ar² represents a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the formula to form a group possessing a cyclic structure with 3-8 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the

formula to form a group possessing a cyclic structure with 3-8 atoms; R⁷ represents a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or a group -N (R⁴)₂, wherein R⁴ individually represents a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent heterocyclic group having 6-20 carbon atoms, or a substituted or unsubstituted, monovalent heterocyclic group having 3-20 atoms, or two R⁴ groups form, in combination and together with the nitrogen atom in the formula, a group having a cyclic structure with 3-8 atoms, s is an integer of 0-6, t is an integer of 0-5, and u is an integer of 1-3.

9. (Previously Presented) An onium salt compound having a cationic moiety represented by the following formula (6),

$$SO_{2} \xrightarrow{\qquad \qquad O-R^{8} \qquad \qquad (6)}$$

$$(Ar^{2})_{\overline{n}} A^{+} \xrightarrow{\qquad (Ar^{1})_{\overline{m}}} (Ar^{1})_{\overline{m}}$$

wherein A represents an iodine atom or a sulfur atom, when A is an iodine atom, m is 1 or 2 and n is 0 or 1, provided that (m+n)=2, and x is an integer of 1-10, and when A is a sulfur atom, m is 1-3 and n is 0-2, provided that (m+n) = 3, and x is an integer of 1-15; Ar¹ represents a substituted or unsubstituted aromatic hydrocarbon group having 6-20 carbon atoms with a valence of 1 to (x+1) or a substituted or unsubstituted heterocyclic group having 3-20 atoms with a valence of 1 to (x+1), Ar^2 represents a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the formula to form a group possessing a cyclic structure with 3-8 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the formula to form a group possessing a cyclic structure with 3-8 atoms; R⁸ and R⁹ individually represent a substituted or unsubstituted alkyl group having 1-20 carbon atoms or a substituted or unsubstituted monovalent alicyclic group having 3-20 carbon atoms, or R⁸ and R⁹ may form, in combination and together with one carbon atom and two oxygen atoms in the formula, a group having a cyclic structure with 4-10 atoms; and v and w are respectively the integers of 0-5, satisfying the formula $(v+w)\geq 1$.

10.-13. (Canceled)

- 14. (Previously Presented) A positive tone radiation-sensitive resin composition comprising:
- (A) at least one onium salt compound having a cation moiety of the following formula (1),

$$(Ar^2)_{\overline{n}} A^{+} (Ar^1)_{m}$$
 (1)

wherein A represents an iodine atom or a sulfur atom, when A is an iodine atom, m is 1 or 2 and n is 0 or 1, provided that (m+n)=2, and x is an integer of 1-10, and when A is a sulfur atom, m is 1-3 and n is 0-2, provided that (m+n) = 3, and x is an integer of 1-15; Ar¹ represents a substituted or unsubstituted aromatic hydrocarbon group having 6-20 carbon atoms with a valence of 1 to (x+1) or a substituted or unsubstituted heterocyclic group having 3-20 atoms with a valence of 1 to (x+1), Ar^2 represents a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the formula to form a group possessing a cyclic structure with 3-8 atoms; and the x-number of P groups bonding to one or more of the m-number of Ar¹ groups individually represent -O-SO₂R¹, -O-S(O)R², or - SO₂R³, wherein R¹, R², and R³ individually represent a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or a group -N(R')2, wherein R' individually represents a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon

atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or two R' groups form, in combination and together with the nitrogen atom in the formula, a group having a cyclic structure with 3-8 atoms; and

- (B) a resin having an acid-dissociable group and which is insoluble or scarcely soluble in alkali, but which becomes alkali soluble when the acid-dissociable group dissociates.
- 15. (Original) The positive tone radiation-sensitive resin composition according to claim 14, wherein the onium salt compound is selected from the onium salt compounds having -SO₂R³ for the group P in the formula (1).
- 16. (Previously Presented) A positive tone radiation-sensitive resin composition comprising (A) at least one onium salt compound according to Claim 3 as a photoacid generator; and (B) a resin having an acid-dissociable group and which is insoluble or scarcely soluble in alkali, but becomes alkali soluble when the acid-dissociable group dissociates.
- 17. (Previously Presented) A positive tone radiation-sensitive resin composition comprising: (A) at least one onium salt compound according to Claim 5 as a photoacid generator; and (B) a resin having an acid-dissociable group and which is insoluble or scarcely soluble in alkali, but becomes alkali soluble when the acid-dissociable group dissociates.

18. (Canceled)

19. (Previously Presented) An onium salt compound having a cation moiety of the following formula (1),

$$(Ar^2)_{\overline{n}} A^{+} (Ar^1)_{\overline{n}}$$
 (1)

wherein A represents an iodine atom or a sulfur atom, when A is an iodine atom, m is 1 or 2 and n is 0 or 1, provided that (m+n)=2, and x is an integer of 1-10, and when A is a sulfur atom, m is 2 or 3 and n is 0 or 1, provided that (m+n) = 3, and x is an integer of 1-15; Ar¹ represents a substituted or unsubstituted aromatic hydrocarbon group having 6-20 carbon atoms with a valence of 1 to (x+1) or a substituted or unsubstituted heterocyclic group having 3-20 atoms with a valence of 1 to (x+1), Ar^2 represents a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or Ar¹ and Ar² mutually bond together with A⁺ in the formula to form a group possessing a cyclic structure with 3-8 atoms; and the x-number of P groups bonding to the m-number of Ar¹ groups individually represent -O-SO₂R¹, -O-S(O)R², or - SO₂R³, wherein R¹, R², and R³ individually represent a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or a group -N(R')₂, wherein R' individually represents a hydrogen atom, a substituted or unsubstituted alkyl group having 1-20 carbon atoms, a substituted or unsubstituted monovalent alicyclic hydrocarbon group having 3-20 carbon atoms, an

alkenyl group having 2-20 carbon atoms, a substituted or unsubstituted monovalent aromatic hydrocarbon group having 6-20 carbon atoms, or a substituted or unsubstituted monovalent heterocyclic group having 3-20 atoms, or two R' groups form, in combination and together with the nitrogen atom in the formula, a group having a cyclic structure with 3-8 atoms.

20. (Currently Amended) An A positive tone radiation-sensitive resin composition comprising:

(A) at least one onium salt compound having a cation moiety selected from the group consisting of:

$$S^+$$
 SO_2 CH_3

; and

as a photoacid generator and;

(B) a resin having an acid-dissociable group and which is insoluble or scarcely soluble in alkali, but becomes alkali soluble when the acid-dissociable group dissociates.

21. (Canceled).